Claim Amendments:

Please amend claims as follows:

1. *(Currently Amended)* A method for reducing volume resistivity of a body consisting essentially of aluminum nitride, comprising exposing the body to a temperature of at least about 1000°C in an atmosphere deficient in nitrogen, wherein a partial pressure of nitrogen in said atmosphere is less than about 35 kPa, and wherein the body has a relative density greater than about 98% of theoretical density.

2. *(Original)* The method of Claim 1, wherein said body is polycrystalline.

3. *Cancelled.*

4. *(Original)* The method of Claim 3, wherein said atmosphere consists essentially of a gas selected from the group consisting of argon, helium, and mixtures thereof.

5. *(Original)* The method of Claim 4, wherein said atmosphere consists essentially of argon.

6. *(Original)* The method of Claim 5, wherein the body is exposed to a temperature of at least about 1200°C.

7. *(Original)* The method of Claim 6, wherein the body is exposed to a temperature of at least about 1500°C.

8. *(Original)* The method of claim 7, wherein the body is exposed to a temperature of at least about 1650°C.

9. *(Original)* The method of Claim 4, wherein the body is exposed to said temperature for a period of at least about 0.5 hours after the body has reached thermal equilibrium.

10. *(Original)* The method of Claim 9, wherein the body is exposed to said temperature for a period of at least about four hours after the body has reached thermal equilibrium.

11. *(Original)* The method of Claim 8, further including steps of cooling the body at a rate of less than about 15°C per minute to a temperature of less than about 1200°C.

12. *(Original)* The method of Claim 11, wherein the body is cooled to a temperature of about 1500°C.

13. *(Original)* The method of Claim 1, wherein the atmosphere is at a pressure of at least about 1 Pa.

14. *(Original)* The method of Claim 1, wherein the atmosphere is at a pressure of between about 7 kPa and about 14 kPa.

15. *(Original)* The method of Claim 4, wherein the polycrystalline body is exposed to said atmosphere at a temperature of at least about 1650°C for a period of at least about four hours, and wherein the atmosphere is at a pressure of about 20 MPa.

16. *(Original)* The method of Claim 15, further including the step of cooling the polycrystalline body to a temperature of about 1500°C at a rate of about 15°C per minute.

17. *(Cancelled)*

18. *(Original)* The method of Claim 1, wherein said body is a green body.

19. *(Original)* The method of Claim 18, wherein the green body includes aluminum nitride particles having an average particle size in a range of between about 0.1 μm and about 5.0 μm.

20. *(Original)* The method of Claim 19, further including the step of sintering said green body.

21. *(Original)* The method of Claim 20 wherein said green body is sintered at a temperature of at least about 1600°C.

22. *(Original)*The method of Claim 21, wherein said green body is sintered in an atmosphere deficient in nitrogen.

23. *(Original)* The method of Claim 22, wherein said atmosphere consists essentially of argon.

24. *(Original)* The method of Claim 23, wherein said green body causes said body to become polycrystalline.

25. *(Original)* The method of Claim 24, further including the step of cooling said polycrystalline body to about 25°C prior to exposing the body to a temperature of at least about 1000°C in an atmosphere deficient in nitrogen.

26. *(Original)* The method of Claim 25, wherein the polycrystalline body is exposed to a temperature of at least about 1600°C for a period of at least about four hours.

27. *(Original)* The method of Claim 26, further including the step of cooling the polycrystalline body to a temperature less than about 1500°C at a rate less than about 15°C per minute.

28. *(Cancelled)*

29. *(Original)* The method of Claim 20, wherein the green body is sintered at a pressure in a range of between about 10 MPa and about 50 MPa.

30. *(Original)* The method of Claim 20, wherein the green body is sintered at a pressure of at least about 10MPa.

31. *(Original)* The method of Claim 30, wherein the green body is sintered at a pressure of about 20 MPa.

32. *(Original)* The method of Claim 1, wherein the body is exposed to said temperature in excess of about 1000°C for a period of time sufficient to cause the volume resistivity to be in a range of between about $1x10^{8}$ ohm.cm and $1x10^{13}$ ohm.cm at a temperature of about 23°C.

33. *(Original)* The method of Claim 1 wherein the body is formed from an AIN powder and said powder is exposed to a temperature of at least about 1000°C in an atmosphere deficient in nitrogen.

34. *(Currently Amended)* A method for forming a polycrystalline aluminum nitride body having a volume resistivity less than about $1x10^{13}$ ohm.cm at a temperature of about 23°C, comprising the steps of:

a) sintering a green body consisting essentially of aluminum nitride to form a polycrystalline body and;

b) exposing said polycrystalline body to soak temperature of at least about 1000°C in an atmosphere deficient in nitrogen for a period of time sufficient to cause the volume resistivity of the polycrystalline body to be less than about $1x10^{13}$ ohm.cm at a temperature of about 23°C, wherein a partial pressure of nitrogen in said atmosphere is less than about 35 kPa, and wherein the polycrystalline body has a relative density greater than about 98% of the theoretical density.

35. *(Original)*The method of Claim 34 wherein the atmosphere deficient in nitrogen consists essentially of argon.

36. *(Original)* The method of Claim 35, wherein the green body includes aluminum nitride and powder having an average particle size in a range of between about 0.1μm and about 5.0μm.

37. *(Original)* The method of Claim 36, wherein the polycrystalline body is cooled from a sintering temperature to at a rate less than about 15°C per minute.

38. *(Original)* The method of Claim 37, wherein the green body is sintered in a nitrogen-deficient atmosphere.

39. *(Original)* The method of Claim 38, wherein the green body is sintered in an atmosphere consisting essentially argon.

40. *(Original)* The method of Claim 39, wherein the green body is sintered at a pressure in a range of between about 10 MPa and about 50 MPa.

41. *(Original)* The method of Claim 39, wherein the green body is sintered at a pressure of at least about 10 MPa.

42. *(Original)* The method of Claim 34 wherein the body is formed from an AIN powder exposed to a soak temperature of at least about 1000°C in an atmosphere deficient in nitrogen.

43. *(Currently Amended)* A method of reducing the volume resistivity of an electrostatic chuck consisting essentially of aluminum nitride, comprising exposing at least a portion of the electrostatic chuck to a temperature of at least about 1000°C in an atmosphere deficient in nitrogen, wherein a partial pressure of nitrogen in said atmosphere is less than about 35 kPa, and wherein the chuck has a relative density greater than about 98% of theoretical density.

44. *(Original)* The method of Claim 43, wherein the atmosphere consists essentially of argon.

45. *(Original)*The method of Claim 43, wherein the electrostatic chuck is exposed to said temperature in excess of 1000°C for a period of time sufficient to cause the volume resistivity of the chuck to be in a range of between about $1x10^8$ ohm.cm and about $1x10^{13}$ ohm.cm at a temperature of about 23°C.

46. *(Cancelled)*

47. *(Previously Added)* The method of claim 1, wherein said body does not contain sintering aids.

48. *(Previously Added)* The method of claim 34, wherein said green body is formed without the addition of sintering aids.

49. *(Previously Added)* The method of claim 43, wherein said electrostatic chuck does not contain sintering aids.

50. *(Currently Amended)* A method for forming a polycrystalline aluminum nitride electrostatic chuck, comprising the steps of:

forming a green body consisting essentially of aluminum nitride powder without addition of sintering aids;

sintering the green body to form a polycrystalline body, wherein sintering is carried out at a pressure of at least about 10MPa; and

exposing the polycrystalline body to a temperature of at least 1000°C in an atmosphere deficient in nitrogen, wherein a partial pressure of nitrogen in said atmosphere is less than about 35 kPa, and wherein the polycrystalline body has a relative density greater than about 98% of theoretical density.